

Appl. No. 08/872,097
Amdt. dated July 1, 2004
Reply to Office Action of May 4, 2004

Remarks

The instant application is directed to an apparatus for delivery of fluids to, and evacuation of fluids from, a plurality of reaction vessels. The delivery or evacuation of fluids is conducted at the same time for each of the reaction vessels, so that the chemical reactions in the respective vessels are able to progress simultaneously. See specification at, e.g., page 2, lines 25-26. The inventive apparatus thus is especially useful for parallel or combinatorial chemical synthesis.

A key advantage over the prior art is that the present invention allows for reaction vessels or fluid delivery lines to be moved with respect to each other, so that fluids may be supplied to each reaction vessel through dedicated delivery lines. This avoids contamination of the delivery lines, since each line will deliver only a single type of fluid. Also, this eliminates the need for valves or complicated tubing arrangements. See specification at, e.g., page 4, lines 25-33.

Claims 1-9, 11-29, 31-43 and 47-67 have been pending in the application. The Applicants again gratefully acknowledge the Examiner's indication that claims 11-16, 31-34, 66 and 67 are allowed. However, claims 1-6, 20, 21, 23-28, 38, 39 and 47 are rejected. In addition, claims 7-9, 17-19, 22, 29, 35-37, 40-43 and 48-65 are objected to as being dependent upon a rejected base claim.

Claims 11-16, 23-29, 35-40 and 66 are canceled herein. Therefore, claims 1-9, 17-22, 31-34, 41-43, 47-65 and 67 remain pending in the application.

Independent claims 1, 47 and 67 have been amended to include a recitation of the "actuator" feature from canceled claim 23. This recitation has been clarified with respect to the actuator's function, as taught by the instant specification: the actuator changes the relative orientations of the reaction vessel support and the plurality of injection fittings and evacuation

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fittings, so as to selectively align a given injection fitting and evacuation fitting with a different one of said reaction vessels.

The Art Rejections

Claims 1, 2, 4, 20, 21, 23, 24, 26, 38, 39 and 47 stand rejected under 35 U.S.C. 102(e), and claims 3, 4, 6, 25, 27 and 28 stand rejected under 35 U.S.C. 103(a), all as being unpatentable in view of Zuellig et al. U.S. Patent No. 6,126,904 ("Zuellig").

The Applicants make no admission as to whether or not Zuellig is, in fact, prior art with respect to the instant application. Nonetheless, it is respectfully submitted that the claims, as amended, distinguish patentably over Zuellig.

As discussed at page 2, line 34 through page 3, line 6 of the specification: "One conventional approach to delivering fluids to reaction vessels relies upon a labyrinthine plumbing system which routes solvents, reactants and reagents to various reaction vessels through tubes selected by a complex valving system which may be under computer control. A similar system is required to remove the reaction products from vessels. Not only is such a system complex and expensive, it also presents major maintenance, reliability and contamination problems."

Unlike the present invention, Zuellig does not use an actuator (or any other means) to move reaction vessels or fluid delivery lines with respect to each other. Rather, Zuellig is representative of the above "conventional approach." It is apparent from Zuellig's disclosure that his reaction vessels and fluid delivery lines are stationary with respect to one another, and depend on computer control of a multiplicity of valves "to introduce a variety of different liquids in a successive manner into the common manifold which leads to the reaction vessels." See Zuellig

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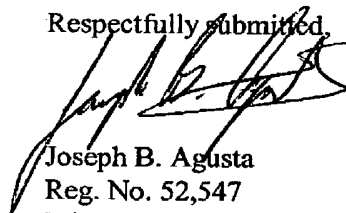
at, e.g., col. 2, lines 43-45 and col. 14, line 63 to col. 15, line 2. Thus, Zuellig fails to teach or suggest any solution to the "maintenance, reliability and contamination problems" of the prior art, and certainly fails to adopt the solution provided by the present invention.

Conclusion

The current amendments to the claims make it clear that the function of the actuator is to "chang[e] the relative orientations of the reaction vessel support and the plurality of injection fittings and evacuation fittings, so as to selectively align a given injection fitting and evacuation fitting with a different one of said reaction vessels." Such a feature is nowhere contemplated in Zuellig.

Since all of the presently pending claims, as amended, distinguish patentably over the cited art, withdrawal of the present rejection and prompt allowance are requested.

Respectfully submitted,



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